Amendments to the Claims

The following listing of claims replaces all prior claim versions and listings for this application:

1. (Withdrawn) A method for induction of anti-tumor immunity in a mammal comprising administering to said mammal an effective amount of at least one immunogen selected from the group consisting of:

(i) a peptide based on a CDR of the heavy or light chain of an anti-p53 mAb, which peptide is capable of eliciting antibodies to p53; and

(ii) a DNA molecule coding for the variable (V) region of an anti-p53 mAb in a suitable gene delivery vehicle.

2. (Withdrawn) A method for activating an enhanced immune response to p53 in a mammal comprising immunizing said mammal with an effective amount of at least one immunogen selected from the group consisting of:

(i) a peptide based on a CDR of the heavy or light chain of an anti-p53 mAb, which peptide is capable of eliciting antibodies to p53; and

(ii) a DNA molecule coding for the variable (V) region of an anti-p53 mAb in a suitable gene delivery vehicle.

3. (Withdrawn) A method for induction of immune responses to mutated and wild-type forms of p53 in a mammal comprising immunization of said mammal with an effective amount of at least one immunogen selected from the group consisting of:

(i) a peptide based on a CDR of the heavy or light chain of an anti-p53 mAb, which peptide is capable of eliciting antibodies to p53; and

(ii) a DNA molecule coding for the variable (V) region of an anti-p53 mAb in a suitable gene delivery vehicle.

4. (Withdrawn and Currently Amended) The method according to claim 1, wherein the peptide based on a CDR of the heavy or light chain of an anti-p53 mAb contains a sequence of the CDR2 or CDR3 of the heavy chain, or of the CDR3 of the light chain, of an

anti-p53 mAb selected from mAb 240, 246 [[, 248]] and 421, said peptide being selected from the group consisting of:

(i) peptides, herein designated Ia-Ib, based on the CDR2 and CDR3, respectively, of the heavy chain (240VH), and peptide Ic based on the CDR3 of the light chain (240VL), of the anti-p53 mAb 240, of the sequences: (Ia) Glu-Ile-Asp-Pro-Ser-Asp-Ser-Tyr-Thr-Asn-Tyr-Asn-Gln-Asn-Phe-Lys-Asp (SEQ ID NO:9), (Ib) Leu-Leu-Arg-Tyr-Phe-Ala-Met-Asp-Tyr (SEQ ID NO:10), or (Ic) Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11);

(ii) peptides, herein designated IIa-IIb, based on the CDR2 and CDR3, respectively, of the heavy chain (246VH), and peptide 11c based on the CDR3 of the light chain (246VL), of the anti-p53 mAb 246, of the sequences: (IIa) Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr- Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly (SEQ ID NO:12), (IIb) Gly-Gly-Gly-Leu-Lys-Gly-Tyr-Pro-Phe-Val-Tyr (SEQ ID NO:13), or (IIc) Gln-Gln-Arg-Ser-Ser-Phe-Pro-Phe-Thr (SEQ ID NO:14);

~~(iii) peptides, herein designated IIIa-IIIb, based on the CDR2 and CDR3, respectively, of the heavy chain (248VH), and peptide IIIc based on the CDR3 of the light chain (248VL), of the anti-p53 mAb 248, of the sequences: (IIIa) Asp-Ile-Tyr-Pro-Asn-Asn-Gly-Phe-Thr-Thr-Tyr-Asn-Gln-Lys-Phe-Lys-Gly (SEQ ID NO:15), (IIIb) Ser-Gly-Ser-Arg-Phe-Asp-Tyr (SEQ ID NO:16), or (IIIc) Gln-Gln-Ser-Asn-Ser-Trp-Pro-Val-His-Ala (SEQ ID NO:17);~~ and

(iii) [[(iv)]] peptides, herein designated IVa-IVb, based on the CDR2 and CDR3, respectively, of the heavy chain (421VH), and peptide IVc based on the CDR3 of the light chain (421VL), of the anti-p53 mAb 421, of the sequences: (IVa) Trp-Ile-Asp-Pro-Glu-Asn-Gly-Asp-Thr- Glu-Tyr-Ala-Pro-Lys-Phe-Gln-Gly (SEQ ID NO:18), (IVb) Tyr-Gly-Asp-Ala-Leu-Asp-Tyr (SEQ ID NO:19), or (IVc) Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr (SEQ ID NO:20).

5. (Withdrawn and Currently Amended) The method according to claim 4, wherein said peptide contains a sequence selected from the group of sequences consisting of Ic (SEQ ID NO:11), IIa (SEQ ID NO:12), ~~IIIb (SEQ ID NO:16), IIIc (SEQ ID NO:17)~~ and IVc (SEQ ID NO:20).

6. (Withdrawn and Currently Amended) The method according to claim 5, wherein the peptides are selected from the group consisting of peptides V-IX of the sequences:

Peptide V: Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser SEQ ID NO:21,

Peptide VI: Gly-Val-Tyr-Tyr-Cys-Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr-Phe-Gly-Ala-Gly-Thr-Lys SEQ ID NO:22, and

Peptide VII: Gly-Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr-Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly-Lys-Ala SEQ ID NO:23[[,]]

~~Peptide VIII: Ala-Val-Tyr-Tyr-Cys-Ala-Arg-Ser-Gly-Ser-Arg-Phe-Asp-Tyr-Trp-Gly-Glu-Gly-Thr-Thr SEQ ID NO:24, and~~

~~Peptide IX: Val-Tyr-Phe-Cys-Gln-Gln-Ser-Asn-Ser-Trp-Pro-Val-His-Ala-Arg-Gly-Gly-Gly-Thr-Lys SEQ ID NO:25~~.

7. (Withdrawn) The method according to claim 4, which comprises administering to a patient effective amounts of two or more different peptides based on the same or different CDRs of the same anti-p53 mAb or of different anti-p53 mAbs, either concomitantly or sequentially at different intervals.

8. (Original) A synthetic peptide capable of eliciting antibodies to p53, which peptide contains a sequence of a CDR of the heavy or light chain of an anti-p53 mAb, and salts and chemical derivatives thereof.

9. (Currently Amended) A synthetic peptide according to claim 8, containing a sequence of the CDR2 or CDR3 of the heavy chain, or of the CDR3 of the light chain, of an anti-p53 mAb selected from mAb 240, 246 [[, 248]] and 421, said peptide being selected from the group consisting of:

(i) peptides, herein designated Ia-Ib, based on the CDR2 and CDR3, respectively, of the heavy chain (240VH), and peptide Ic based on the CDR3 of the light chain (240VL), of the anti-p53 mAb 240, of the sequences: (Ia) Glu-Ile-Asp-Pro-Ser-Asp-Ser-Tyr-Thr-Asn-Tyr-Asn-Gln-Asn-Phe-Lys-Asp (SEQ ID NO:9), (Ib) Leu-Leu-Arg-Tyr-Phe-Ala-Met-Asp-Tyr (SEQ ID NO:10), or (Ic) Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11);

(ii) peptides, herein designated IIa-IIb, based on the CDR2 and CDR3, respectively, of the heavy chain (246VH), and peptide 11c based on the CDR3 of the light chain (246VL), of the anti-p53 mAb 246, of the sequences: (IIa) Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr- Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly (SEQ ID NO:12), (IIb) Gly-Gly-Gly-Leu-Lys-Gly-Tyr-Pro-

Phe-Val-Tyr (SEQ ID NO:13), or (IIc) Gln-Gln-Arg-Ser-Ser-Phe-Pro-Phe-Thr (SEQ ID NO:14);

~~(iii) peptides, herein designated IIIa-IIIb, based on the CDR2 and CDR3, respectively, of the heavy chain (248VH), and peptide IIIc based on the CDR3 of the light chain (248VL), of the anti-p53 mAb 248, of the sequences: (IIIa) Asp-Ile-Tyr-Pro-Asn-Asn-Gly-Phe-Thr-Thr-Tyr-Asn-Gln-Lys-Phe-Lys-Gly (SEQ ID NO:15), (IIIb) Ser-Gly-Ser-Arg-Phe-Asp-Tyr (SEQ ID NO:16), or (IIIc) Gln-Gln-Ser-Asn-Ser-Trp-Pro-Val-His-Ala (SEQ ID NO:17); and~~

(iii) [[(iv)]] peptides, herein designated IVa-IVb, based on the CDR2 and CDR3, respectively, of the heavy chain (421VH), and peptide IVc based on the CDR3 of the light chain (421VL), of the anti-p53 mAb 421, of the sequences: (IVa) Trp-Ile-Asp-Pro-Glu-Asn-Gly-Asp-Thr- Glu-Tyr-Ala-Pro-Lys-Phe-Gln-Gly (SEQ ID NO:18), (IVb) Tyr-Gly-Asp-Ala-Leu-Asp-Tyr (SEQ ID NO:19), or (IVc) Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr (SEQ ID NO:20); and

salts thereof.

10. (Currently Amended) A synthetic peptide according to claim 9, wherein the peptide contains a sequence selected from the group of sequences consisting of Ic (SEQ ID NO:11), IIa (SEQ ID NO:12), ~~IIIb (SEQ ID NO:16), IIIc (SEQ ID NO:17)~~ and IVc (SEQ ID NO:20).

11. (Currently Amended) A synthetic peptide according to claim 10, wherein the peptides are selected from the group consisting of peptides V-IX of the sequences:
Peptide V: Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser SEQ ID NO:21,
Peptide VI: Gly-Val-Tyr-Tyr-Cys-Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr-Phe-Gly-Ala-Gly-Thr-Lys SEQ ID NO:22,
Peptide VII: Gly-Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr-Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly-Lys-Ala SEQ ID NO:23, and
~~Peptide VIII: Ala-Val-Tyr-Tyr-Cys-Ala-Arg-Ser- Gly-Ser-Arg-Phe-Asp-Tyr-Trp-Gly-Glu-Gly-Thr-Thr- SEQ ID NO:24, and~~
~~Peptide IX: Val-Tyr-Phe-Cys-Gln-Gln-Ser-Asn-Ser-Trp-Pro-Val-His-Ala-Arg-Gly-Gly-Gly-Thr-Lys- SEQ ID NO:25~~
salts thereof.

12. (New) A synthetic peptide according to claim 8, wherein the peptide contains the sequence: Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11) or Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser (SEQ ID NO:21).

13. (New) A method for induction of anti-tumor immunity in a mammal comprising administering to said mammal an effective amount of the synthetic peptide according to claim 12.

14. (New) A method for activating an enhanced immune response to p53 in a mammal comprising immunizing said mammal with an effective amount of the synthetic peptide according to claim 12.

15. (New) A method for induction of immune responses to mutated and wild-type forms of p53 in a mammal comprising immunization of said mammal with an effective amount of the synthetic peptide according to claim 12.

16. (New) The method according to claim 12, which comprises administering to a patient effective amounts of two or more synthetic peptides according to claim 12, either concomitantly or sequentially at different intervals.

17. (New) The peptide of claim 8 in the form of an organic or inorganic salt thereof.